#### DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials

Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

## WELDING INSPECTION REPORT

Resident Engineer: Siegenthaler, Peter **Report No:** WIR-022927 Address: 333 Burma Road **Date Inspected:** 09-Apr-2011

City: Oakland, CA 94607

**OSM Arrival Time:** 700 **Project Name:** SAS Superstructure **OSM Departure Time:** 1900 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Corporation, Ltd (ZPMC), Changxing Island Location: Shanghai, China

**CWI Name: CWI Present:** Yes Mr. Mai Quin Li No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A N/A **Approved Drawings:** Yes No **Approved WPS:** Yes No Yes No N/A **Delayed / Cancelled:** 

34-0006 **Bridge No: Component:** Steel Barriers & Handrail

#### **Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance (QA) Inspector, Delbert Humphrey was present during the times noted above for observations relative to the work being performed at ZPMC.

**WELDING** OBG Bay #16

This QA Inspector observed the following work in progress:

SMAW welding of weld identified as E2-SB31-004-102, located on Steel Barrier, E2-SB31-004. Welder is identified as 201905. ZPMC Quality Control (QC) is identified as Mr. Mai Quin Li. The welding variables recorded by QC appeared to comply with WPS-B-T-2112.

SMAW welding of weld identified as E2-SB32C-001-101, located on Steel Barrier, E2-SB32C-001. Welder is identified as 201905. ZPMC Quality Control (QC) is identified as Mr. Mai Quin Li. The welding variables recorded by QC appeared to comply with WPS-B-T-2112.

SMAW welding of weld identified as E2-SB34-001-104, located on Steel Barrier, E2-SB34-001. Welder is identified as 201905. ZPMC Quality Control (QC) is identified as Mr. Mai Quin Li. The welding variables recorded by QC appeared to comply with WPS-B-T-2112.

SMAW welding of weld identified as BKR-FS2-3-P-10, located on BKR-FS2-3. Welder is identified as 201861. ZPMC Quality Control (QC) is identified as Mr. Mai Quin Li. The welding variables recorded by QC appeared to

## WELDING INSPECTION REPORT

(Continued Page 2 of 3)

comply with WPS-B-T-2112.

SMAW welding of weld identified as BKR-FS2-3-P-10, located on BKR-FS2-3. Welder is identified as 201905. ZPMC Quality Control (QC) is identified as Mr. Mai Quin Li. The welding variables recorded by QC appeared to comply with WPS-B-T-2112.

SMAW welding of weld identified as BKR-FS2-3-P-10, located on BKR-FS2-3. Welder is identified as 068918. ZPMC Quality Control (QC) is identified as Mr. Mai Quin Li. The welding variables recorded by QC appeared to comply with WPS-B-T-2112.

Discription of Incident: This QA Inspector was notified by Nace QA inspector Mr. James Lumley during his post blsat inspection of Steel Barriers that were in preparation for the painting operation. This QA Inspector arrived at the Paint Shop 2 and discovered the following.

The sniped areas of the rib plate to diaphragm on the Steel Barrier W2-SB16-002 were seal welded which were not in compliance with the correct documents. The area of the snipe access holes shall have an opening of six (6)mm. The welds were identified as W2-SB16-002-001, 002, 003, 004, 005 006, 007, 008, 009, 010, 011, 012, 032, 033, 034, 035, 036, 037, 038, 039, 040, 041, 042, 063, 064, 065, 066, 067, 069, 070, 071, 072, 073, 074.

The rib plate to front shell plate on Steel Barrier W2-SB24-001, fillet weld is not in compliance with the contract documents. The area of the fillet weld is W2-SB24-001-128, and has excess porosity. Longitundinal Linear Indication (LLI) located the end of the welds also were visually observed the welds of rib

plate to diaphragm on steel barriers identified as W2-SB25-002, E5-SB25-001, E5-SB24-001, W2-SB21-001, W2-SB16-001. Thes steel barriers were taken back to Bay 16 for repairs.

Unless otherwise noted, all work observed on this date appeared to be in general compliance with the applicable contract documents.





### **Summary of Conversations:**

No relevant conversations were reported on this date.

#### **Comments**

# WELDING INSPECTION REPORT

(Continued Page 3 of 3)

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang, 15000422372, who represents the Office of Structural Materials for your project.

Inspected By:	Humphrey, Delbert	Quality Assurance Inspector
Reviewed By:	Hall,Steven	QA Reviewer